TRAP BAG FOR THE EXTERMINATION OF INSECTS WITH AN INSECTICIDE SOAKED SURFACE AND A LIQUID SOLUTION CONTENT WITH INSECT ATTRACTING SUBSTANCES

THE FIELD OF THE ART

The present invention relates to the field of the art of insecticide means, and particularly of traps for the extermination of adult dipteres (may-flies), working under ambient conditions.

THE BACKGROUND OF THE INVENTION

Various traps for the extermination of insects are known in the prior art, however these traps have not succeeded in providing an efficient extermination of insects, due to various reasons associated with either the materials used and/or their structural characteristics.

By way of example, the U.S. Pat. No. 4,218,843 of Clarke Jr., 4,130,092 of Eshnaur et al and 4,706,410 of M. W. Briese, as well as the UK patent No. 1 360 802 of ICI ltd, all refer to traps for the aquatic mosquito and to the extermination of larvae of this kind. On the contrary, the object of the present invention is the extermination of adult dipteres (may-flies). On the other hand, operation of these insect traps of the prior art is based on the dissolution of solid toxic substances within the liquid phase surrounding the trap, whilst operation of the trap bag proposed in the present invention is controlled and based upon the controlled emission of vapour containing insect attracting substances, the insects being killed by the mere contact with the insecticide soaked surface of the trap bag. Thus, due to their mode of operation and to the materials used in their construction, the trap bags of the present invention offer an increased service life, whilst respecting the environment.

The traps of the prior art constitute a serious threat to the environment, create dangers for their users and act indifferently against useful insects as well. Their polluting action is due both to the materials used in their construction (e.g. plastics), or to the water, soil and air pollution caused by their operation due to the emission of toxic substances therefrom. It is further noted that it is not possible for these traps of the prior art to acquire a renewed effectiveness by means of their periodical filling with the required substances and thus they must be disposed off after a single usage. Similar disadvantages may be referred in connection to the liquid spraying of toxic substances, the effectiveness of which deteriorates rapidly after their drying, whilst they additionally leave toxic remnants upon the products onto which they are used.

It is an object of the present invention to effectively overcome the abovementioned drawbacks of the prior art, by providing a low cost environmental and highly effective trap for the extermination of a specific category of insects.

In accordance to the present invention a trap bag for the extermination of insects is proposed, particularly of the olive fly, of the Mediterrannean fly, of the cherry and of the domestic fly, this trap bag comprising a porous surface soaked with a suitable toxic insecticide, a controlled, continous emission of a desired mixture of substances attracting this particular category of insects being provided through the abovementioned porous surface, these insects being exterminated when falling upon the insecticide soaked surface of the trap bag. The service life of the proposed trap bag is longer than that obtained by insecticide means of the prior art and it can be prolongued by periodically renewing the insect attracting substances contained therein.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be made apparent to those skilled in the art by reference to the accompanying drawings, depicting illustrative embodiments of the invention.

FIG. **1** shows a first illusrtative embodiment of the trap bag for the extermination of insects of the invention, comprising a fabric made bag of rectangular section with three compartments.

FIG. **2** shows an alternative second illustrative embodiment of the trap bag for the extermination of insects of the invention, comprising a fabric made bag of rectangular section with an internal flexible, foldable plastic tubular bag filled with water.

FIG. **3** shows a third alternative illustrative embodiment of the trap bag for the extermination of insects of the invention, comprising a solid insecticide plate in contact with a plastic container of a water solution with insect attracting substances.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

The object of the invention being the suggestion of an efficient trap for the extermination of insects, particularly of those insects intensely present during the dry-hot summer period, from July to October, it is realised without any adverse effect on the tree and its fruits that could be caused by liquid spraying with poisonous substances, but merely by means of hanging on the trees a suitable number of traps, this number depending on the overall area of the farm. Each trap bag basically comprises an insecticide soaked surface whereupon fall and are killed the harmful insects, which are attracted to fall thereupon by a controlled emission, through this same surface, of a water solution containing substances which attract these insects.

The proposed trap bag for the extermination of insects may be made in various shapes and sizes, the illustrative depicted trap being of rectangular shape with dimensions of the order of 13.5X 20 cm, which is considered satisfactory for one large tree, whereas a plurality of **12–14** trap bags of this size are considered to offer an adequate protection for an area of 1000 m2 of densely planted land.

It is well known that during the dry hot summer period, insects search for a humid environment, such environment being offered by the trap of the invention, which provides a constant, slow and controlled evaporation of a water solution, which, in accordance to a preferred embodiment of the invention, contains and emitts in the same time, odours of nourishing or pheromonic substances or of any combination of the same.

In accordance to a first preferred embodiment of the invention, the trap for the extermination of insects depicted in FIG. **1** comprises a bag **1**, the side of which are glued or stitched together by means of stapler **2**. The upper sides of the bag are also glued or stitched together, however leaving an aperture **6** via which the trap is filled with water or water solution contained within the largest compartment **3** of the bag. Whilst the trap bag may consist of a single compartment **3** within which may be contained a water solution of any desired